

What is claimed is:

- 1 1. An apparatus for classifying a call to a destination
- 2 endpoint comprising:
 - 3 a receiver for receiving information from the
 - 4 destination endpoint;
 - 5 a first detector for determining a first classification in
 - 6 response to the information received from the destination
 - 7 endpoint;
 - 8 a second detector for determining a second
 - 9 classification in response to the information received from the
 - 10 destination endpoint;
 - 11 a third detector for determining a third classification in
 - 12 response to the information received from the destination
 - 13 endpoint; and
 - 14 an inference engine for determining a call
 - 15 classification of the destination endpoint in response to the first,
 - 16 second, and third classifications.
- 1 2. The apparatus of claim 1 further comprises a fourth
- 2 detector for determining a fourth classification in response to
- 3 the information received from the destination endpoint; and
- 4 the inference engine further responsive to the fourth
- 5 classification for determining the call classification of the
- 6 destination endpoint.

1 3. The apparatus of claim 1 wherein the first detector
2 is a tone detector.

1 4. The apparatus of claim 1 wherein the second
2 detector is an energy analyzer.

1 5. The apparatus of claim 1 wherein the third detector
2 is a zero crossing analyzer.

1 6. The apparatus of claim 2 wherein the fourth
2 detector is an automatic speech recognizer.

1 7. The apparatus of claim 6 further comprises a
2 recorder for recording the received information and for updating
3 the inference engine.

1 8. The apparatus of claim 2 wherein the first detector
2 is a tone detector, the second detector is an energy analyzer,
3 and third detector is a zero crossing analyzer;

1 9. The apparatus of claim 8 wherein the fourth
2 detector is an automatic speech recognizer.

1 10. A call classifier for classifying a call to a
2 destination endpoint comprising:
3 a circuit for receiving information from the destination
4 endpoint and for processing the received information;
5 a tone detector for determining a first classification in

6 response to the processed information;
7 a energy analyzer detector for determining a second
8 classification in response to the processed information;
9 a zero crossing analyzer detector for determining a
10 third classification in response to the processed information;
11 and
12 an inference engine for determining a call
13 classification of the destination endpoint in response to the first,
14 second, and third classifications.

1 11. The call classifier of claim 10 further comprises a
2 recorder for recording the received information and for updating
3 the inference engine.

1 12. A call classifier for classifying a call to a
2 destination endpoint comprising:
3 a circuit for receiving information from the destination
4 endpoint and for processing the received information;
5 a tone detector for determining a first classification in
6 response to the processed information;
7 a energy analyzer detector for determining a second
8 classification in response to the processed information;
9 a zero crossing analyzer detector for determining a
10 third classification in response to the processed information;
11 an automatic speech recognition unit for determining a
12 fourth classification; and

13 an inference engine for determining a call
14 classification of the destination endpoint in response to the first,
15 second, third and fourth classifications.

1 13. The call classifier of claim 12 further comprises a
2 recorder for recording the received information and for updating
3 the inference engine.

1 14. The call classifier of claim 12 wherein the
2 automatic speech recognition unit is determining words.

1 15. The call classifier of claim 12 wherein the
2 automatic speech recognition unit is determining phrases.

1 16. The call classifier of claim 15 wherein the
2 automatic speech recognition unit is executing a Hidden
3 Markov Model.

1 17. A method for classifying a call to a destination
2 endpoint, comprising the steps of:

3 receiving information from the called destination
4 endpoint;

5 performing a first classification of the received
6 information;

7 performing a second classification of the received
8 information;

9 performing a third classification of the received

10 information; and
11 determining a call classification of the called
12 destination endpoint from the first, second, and third
13 classifications.

1 18. The method of claim 17 further comprises the
2 step of performing a fourth classification of the received
3 information; and
4 the step of determining further responsive to the fourth
5 classification to determine the call classification of the called
6 destination endpoint.

1 19. The method of claim 18 wherein the first
2 classification is for one of tone, energy, zero crossings, or
3 speech.

1 20. The method of claim 19 wherein the second
2 classification is for one of tone, energy, zero crossings, or
3 speech.

1 21. The method of claim 19 wherein the third
2 classification is for one of tone, energy, zero crossings, or
3 speech.

1 22. The method of claim 21 wherein the fourth
2 classification is for one of tone, energy, zero crossings, or
3 speech.

1 23. The method of claim 22 wherein the step of
2 determining comprises the step of executing an inference
3 engine.

1 24. The method of claim 23 further comprises the
2 step of recording the received information for updating the
3 inference engine.

1 25. The method of claim 23 wherein performing
2 classification for speech comprises the step of executing a
3 Hidden Markov Model.

1 26. The method of claim 23 wherein performing
2 classification for speech comprises the step of determining
3 words.

1 27. The method of claim 23 wherein performing
2 classification for speech comprises the step of determining
3 phrases.

1 28. A method for classifying a call to a destination
2 endpoint, comprising the steps of:
3 receiving information from the called destination
4 endpoint;
5 performing a tone classification of the received
6 information;
7 performing a energy classification of the received

8 information;
9 performing a zero crossing classification of the
10 received information;
11 performing speech classification of the received
12 information; and
13 executing an inference engine to determine a call
14 classification of the called destination endpoint from the tone,
15 energy, zero crossing, and speech classifications.

1 29. The method of claim 28 wherein performing
2 speech classification comprises the step of determining words.

1 30. The method of claim 28 wherein performing
2 speech classification comprises the step of determining
3 phrases.

1 31. The method of claim 28 further comprises the
2 step of recording the received information for updating the
3 inference engine.

1 32. Apparatus for implementing the steps of claim 17.

1 33. Apparatus for implementing the steps of claim 18.